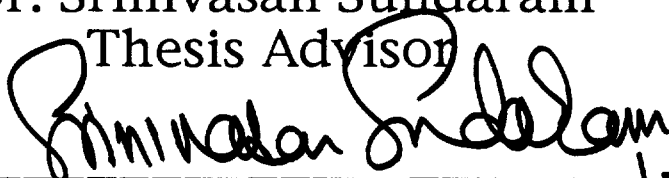


# A Case Study of Caldwell Tanks, Incorporated and Stemwood Corporation

An Honors Thesis (Honors 499)  
by  
Hether A. Misek

Dr. Srinivasan Sundaram  
Thesis Advisor

  
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## **Purpose of the Thesis**

This is a case study of two companies: Stemwood Corporation and Caldwell Tanks, Incorporated. Both companies were in extreme financial trouble and were ready to declare bankruptcy until James W. Robinson decided to purchase them. Mr. Robinson is a venture capitalist whose objective is to resurrect old businesses and found new ones. Along with a history of the companies and the basic facts of the acquisitions, there is an analysis of the well-being of the companies after the purchase took place.

## **CASE 1 - CALDWELL TANKS, INC.**

Caldwell Tanks, Inc. was sold to Mr. Robinson because of its inability to obtain performance bonding. At the end of 1985, Caldwell Tanks, Inc. only had one order on the books and was facing liquidation. It had a 23-person office staff, but only three production workers remained in the plant.

For 98 years the company had produced the steel and wood water plants for municipal and industrial applications. The Caldwell family founded and operated the business for its three generations. The then current CEO, Gordon Caldwell, was in his late 60's and did not have a successor. The company had lost money in 1983 through 1985, so the only apparent alternative was to shut down the business. The company had sufficient cash flow from jobs in progress to meet all liabilities of the company and complete construction of all jobs at acquisition. Before Mr. Robinson had given his offer, it was the intent of company management to slowly bring operations to an end by completing all jobs and paying off all liabilities through company cash flow.

### **BACKGROUND**

Caldwell Tanks, Inc. was established in 1887 and incorporated in 1892. CTI designs, fabricates, and erects ground level and elevated storage tanks of both steel and wood. Steel tanks account for greater than 97% of the company's sales. These tanks range in capacity from 25,000 gallons to 1,500,000 and are fabricated in the plant, shipped to the job site, and are field erected by six-men crews. The site work and painting are done by subcontractors. CTI is licensed in 38 states and has a well-respected and recognized name throughout the industry. The company is located in

Louisville, KY, on 37.78 acres and has approximately 231,698 feet of building and is in good condition.

## **THE INDUSTRY**

The industry that CTI is involved in is capital intensive, requiring years of experience and technical ability to construct these tanks. The fact that, at the time of acquisition, CTI's competition was financially troubled became an asset to Caldwell Tanks, Inc.. CTI's competition had high overhead and labor rates, and Universal Tanks was near bankruptcy.

## **MANAGEMENT**

The acquisition of CTI was accomplished with a minimal amount of key management turnover. Mr. Gordon Caldwell, third generation owner and major stockholder, remained as consultant to new company. Mr. Robinson assumed an active roll as advisor while a CFO ran the new company. The key management that remained include:

Mr. G.H. Duncan, Jr. - 63 years old and has been with the company for 44 years. He was the former CEO of the company prior to a heart attack in 1980. His health is now good and he brings experience throughout the industry and all facets of company operations.

Mr. G.H. Duncan III - 44 years old and has been with the company 17 years. His current responsibilities include operations and engineering with emphasis on data processing, engineering, and management.

Mr. Ralph D. Risimini - 42 years old and has been with the company 7

years as plant manager. Currently he is responsible for all shop fabrication and labor relations. His responsibilities will probably be expanded to aggressively open the industrial market.

## **MARKETING**

After the acquisition, a marketing study was conducted to set the direction and priorities into other markets for CTI. CTI operated with three unions, Shopmen's Local #682, machinists, and boilermakers. The acquisition was contingent upon successful re-negotiation of the Shopman's Local #682 and machinists contracts. The boilermakers represented the erection crews and this was re-negotiated on a national basis. The fabrication personnel (Shopmen's Local #682) were paid an average of \$8.80 per hour which was competitive with non-union wages. On 11/4/85, the unions accepted a three year contract that froze wages in 1986, and provided a 2% increase in each of the last two years. In addition, the union members agreed to pay 50% of their medical insurance (previously CTI paid 100%).

## **UNEXPLOITED OPPORTUNITIES**

Until the acquisition, CTI had not actively sought the industrial market nor repairs and maintenance on the existing tanks. The industrial market is much larger than the municipal market, and generally requires performance bonding. In addition to water tanks, the industrial market includes construction of storage tanks in both carbon and stainless steel. CTI has expertise and capabilities to build tanks in a variety of metals. "Shop built" tanks represented a large market in which CTI had a presence. CTI had the expertise and capacity to be a factor in this market. "Shop built" tanks are fabricated in house with no field erection.

## FINANCING

When Mr. Robinson took over, he arranged for performance bonding immediately and began to bring in revenue as soon as he could. Because of the long construction period of contracts (6 to 12 months), operating losses were incurred as the company got back into production. By refinancing the liability due to Federal National Bank of Louisville (\$1,400,000), the company represented substantial long-term working capital. The working capital was sufficient to carry the company operations until cash was generated from new contracts. All contracts were paid on a percentage of completion method.

The operating losses of the past two years were caused by a conscious management decision to take contracts throughout 1982 and 1983 at a loss. This decision was made by management to prevent laying off employees despite severe price competition. This decision, and the long duration of the contracts, also produced losses through the first quarter of 1985. The company had contracts all of which were profitable and would be substantially complete by fiscal year end 1985. It was not until the second quarter of 1985 that the company's board of directors forced layoffs of company personnel. The hourly personnel have been reduced from 90 to 56, and salaried from 52 to 30. These reductions actually increased productivity and reduced labor costs in excess of \$1.6 million annually. Further hourly and salaried reductions were scheduled.

The company revenue was principally derived through the construction of municipal water tanks. The municipal market had expanded from \$44 million in 1980 to \$100 million in 1985. During this time span, CTT's market share had decreased from 23% to 12%. This decline in market share was due to price competition. In '85, the competition appeared to be declining

as the other four major competitors (Brown Steel Corporation, Universal Tanks, Pittsburgh-Des Moines, and Chicago Bridge and Iron) had also been hurt financially over the past four years. The municipal market was expanding as population changed, ground water was contaminated, water tables declined, and older tanks were replaced. The funding for the municipal water tank construction came primarily through the FMHA.

Included in the acquisition was the following collateral:

1. Property and plant - an appraisal dated October 11, 1984, and prepared by the Harry Lewman Company, represented a fair market value of \$4,525,000. The 37.78 acres were valued at \$677,800 and improvements (231,698) at \$3,847,200.
2. Equipment - an appraisal dated August 8, 1985, and prepared by Advance Machinery Company, presented a fair market value of \$2,136,175.
3. Inventory consisted of steel plate, structural, bar, and tube. There was no work in process considered, and the steel was priced at an average \$.20 per pound. Steel inventory as of 10/31/85 was \$153,000; lumber was \$166,000; and merchandise was \$116,000. Total inventory was \$435,000 as of 10/31/85. To prevent substantial LIFO recapture, steel purchases of approximately \$450,000 were made prior to year end. These purchases were made from company cash flow.
4. The accounts receivable on 9/13/85 included accounts receivable of August 31, 1985, plus projected billings as jobs were completed, receivables totaling

\$5,000,000. This figure would be netted against those expenses incurred to complete said contracts of \$3.4 million. Therefore, net accounts receivable as of 9/13/85 were \$1,600,000. This proposal did not present accounts receivable as a borrowing base because of performance bonding requirements.

5. CTT's pension plan was over funded approximately by \$840,000. The company had already begun to terminate the plan, and began to place annuities for all personnel. The \$840,000 was used for either working capital or prepayment of financing when received.

#### **POST-ACQUISITION GROWTH**

As a result of the acquisition, Mr. Robinson turned wonders for the company. This is shown in the following comparative balance sheets and income statements for the years 1983 through 1987.



**Caldwell Tanks Inc.**  
**Comparative Balance Sheet**  
**December 31, 1983 thru December 31, 1987**

	1983 <u>Actual</u>	1984 <u>Actual</u>	1985 <u>Estimated</u>	1986 <u>Projected</u>	1987 <u>Projected</u>
<b>ASSETS</b>					
Current Assets					
Investable Funds				\$1,001,000	\$2,304,000
Cash and CDs	\$5,000	\$6,000	\$346,000		
Accts./Notes Rec. Net	\$3,901,000	\$3,877,000	\$2,825,000		
Income Tax Rec.	\$211,000	\$9,000			
Inventories	<u>\$977,000</u>	<u>\$957,000</u>	<u>\$43,000</u>	<u>\$689,000</u>	<u>\$689,000</u>
Total current assets	\$5,093,000	\$4,849,000	\$3,214,000	\$5,328,000	\$6,920,000
Non-Current Assets					
Net Fixed Assets	\$1,968,000	\$2,106,000	\$1,989,000	\$1,936,000	\$1,883,000
Prepays/Deferred	\$34,000	\$29,000	\$16,000	\$1,936,000	\$1,883,000
CVLI	\$65,000	\$70,000	\$70,000		
Other Assets			<u>\$16,000</u>	<u>\$16,000</u>	<u>\$16,000</u>
Total Non-Current Assets	<u>\$2,066,000</u>	<u>\$2,205,000</u>	<u>\$2,091,000</u>	<u>\$1,971,000</u>	<u>\$1,916,000</u>
<b>TOTAL ASSETS</b>	\$7,159,000	\$7,053,000	\$5,305,000	\$7,299,000	\$8,835,000
<b>LIABILITIES &amp; S.E.</b>					
Current Liabilities					
Overdraft	\$87,000	\$254,000			
S.T. Loan Pay. - Bank	\$750,000				
CPLTD	\$47,000	\$500,000			
Accts. Pay - Trade	\$1,374,000	\$1,500,000	\$693,000	\$957,000	\$958,000
Accrued Expense	\$225,000	\$259,000	\$12,000		
Billings in Excess Cost	<u>\$1,154,000</u>	<u>\$729,000</u>	<u>\$563,000</u>	<u>\$664,000</u>	<u>\$632,000</u>
Total Current Liab.	\$3,637,000	\$3,242,000	\$1,268,000	\$1,621,000	\$1,589,000
Non-Current Liab.					
L.T. Debt		\$964,000	\$1,464,000	\$1,400,000	\$1,400,000
Deferred Fed. Income Tax	<u>\$163,000</u>	<u>\$158,000</u>			
Total Non-Current Liab.	<u>\$163,000</u>	<u>\$1,122,000</u>	<u>\$1,464,000</u>	<u>\$1,400,000</u>	<u>\$1,400,000</u>
Total Liabilities	\$3,800,000	\$4,364,000	\$2,733,000	\$3,021,000	\$2,989,000
S.E.					
Common Stock	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Retained Earnings	\$2,569,000	\$1,899,000	\$1,782,000	\$3,488,000	\$5,056,000
Treasury Stock	<u>\$10,000</u>	<u>\$10,000</u>	<u>\$10,000</u>	<u>\$10,000</u>	<u>\$10,000</u>
Total S.E.	<u>\$3,359,000</u>	<u>\$2,689,000</u>	<u>\$2,572,000</u>	<u>\$4,278,000</u>	<u>\$5,846,000</u>
<b>TOTAL LIAB. &amp; S.E.</b>	\$7,159,000	\$7,053,000	\$5,305,000	\$7,299,000	\$8,835,000

**Caldwell Tanks, Inc**  
**Income Statement**  
**Years ended December 31, 1987 and 1986**

	<u>1987</u>	<u>1986</u>	<u>1985</u>	<u>1984</u>	<u>1983</u>
Income from contracts	\$14,004,157	\$6,406,924	\$8,572,768	\$14,055,912	\$13,155,661
Contract costs	<u>10,537,468</u>	<u>5,108,601</u>	<u>8,179,982</u>	<u>\$13,198,512</u>	<u>\$12,978,998</u>
GROSS PROFIT	3,466,689	1,298,323	392,786	\$857,400	\$176,663
Engineering, selling, admin. and general expenses	<u>2,108,411</u>	<u>1,499,240</u>	<u>926,796</u>	<u>\$1,431,680</u>	<u>\$1,376,641</u>
<b>OPERATING INC. (LOSS)</b>	1,358,278	(200,917)	(543,010)	(\$574,280)	(\$1,199,978)
Other income:					
Interest income	9,985	10,085	0	\$0	\$0
Interest expense	(291,507)	(311,648)	(118,784)	(\$167,640)	(\$22,926)
Gain on sale of equip.	0	30,781	18,970	\$0	\$0
Rental income	44,386	25,257	0	\$0	\$0
Other	<u>12,616</u>	<u>12,368</u>	<u>70,818</u>	<u>\$62,055</u>	<u>(\$266,881)</u>
<b>INCOME (LOSS) BEFORE TAXES AND EXTRAORDINARY CREDIT</b>	1,133,748	(434,157)	(563,006)	(\$679,865)	(\$1,489,785)
Federal, state and local income taxes:					
Currently Payable	32,705	0	0	(\$5,358)	(\$5,359)
Tax effect of loss carry forward	<u>415,086</u>	<u>0</u>	<u>0</u>	<u>\$4,577</u>	<u>\$165,129</u>
<b>INCOME (LOSS) BEFORE EXTRAORDINARY CREDIT</b>	655,791	(434,074)	(563,006)	(\$669,930)	(\$1,319,297)
Extraordinary credit:					
Gain on termination of pension pay	\$0	\$578,582	\$0	\$0	\$0
Reduction of income taxes arising from carryforward of prior years' operating losses	<u>\$455,086</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>NET INCOME</b>	<b>\$1,101,053</b>	<b>\$144,508</b>	<b>(\$563,006)</b>	<b>(\$669,930)</b>	<b>(\$1,319,297)</b>

## **CASE 2 - STEMWOOD CORPORATION**

Stemwood Corp. is an Indiana subchapter "S" corporation. It was founded for the purpose of purchasing the assets of Chester B. Stem, Inc. The purchase agreement had been executed between Stemwood Corp. and Chester B. Stem, Inc. on June 23, 1989. Chester B. Stem, Inc. will continue in existence, but not in the manufacture and sale of its current product mix. Stemwood Corp. was starting a new operation, but would still serve the same customers, employ the same employees, produce the same products with the same equipment and methods, but did so under entirely new management and financial structure. Stemwood's officers and owners are James W. Robinson, Chairman and Treasurer, 55% owner; and David E. Wunderlin, President and Chief Executive Officer, 45% owner.

### **ATTRACTIVENESS OF THE BUSINESS OPPORTUNITY**

This is exactly the type of industry and company Stemwood's owners were seeking for an acquisition. It fits the strategy precisely of a competitive, low-technology, fragmented, mature industry with excess capacity.

The industry is not cut-throat; there is a camaraderie rather than a rivalry among competitors. Sources of supply are plentiful and not controlled in a monopolistic or oligopolistic way. Plastic laminates became substitutes for veneer and lumber in the 70's. That reduced the total market for veneer and lumber products, but plastics have become a mature product now also. There are few new substitute materials for the current uses of wood components.

The acquired company is a high-quality organization with an excellent reputation. It serves the upper end of the quality/price spectrum in its industry. It has a history of finding and serving niches in the veneer and lumber business.

The plant itself is in excellent condition with excess capacity which can be filled with minimal additional investment to satisfy newly acquired customers. The company has an excellent infrastructure with young, talented middle management in place. Stemwood's management sees an excellent prospect for revitalizing the performance of this business. New management will restructure the company, based on practices and steps that have proven successful in other similar acquisitions of manufacturing organizations. The management's philosophy for success in the mature, fragmented veneer and lumber industry is to perform as an aggressive marketer and high quality/low cost producer.

The purchase price and terms are very encouraging for future operating success. Stemwood's cost of entry does not nearly equal a reasonable estimate of the stream of future earnings. This acquisition is structured so that all parties to the transaction can achieve high levels of return. Its structure also protects the risk of loss for buyer, seller, and lender.

The one potentially unattractive industry factor is the relative size and strength of some members of the customer base. Large furniture and component manufacturers might be in a position to dominate small producers like Stemwood.

## **FINANCING**

To complete the acquisition, Stemwood Corp. will require total borrowings of up to \$2.6 million, peaking in the second twelve months of operations. Of this amount, approximately \$1,300,000 is planned to be a term loan, secured by land, buildings, and equipment worth over \$3.7 million, fair market value. The remaining amount, up to \$1.3 million, is planned as an operating line of credit, which will fluctuate according to operating needs. It will

be secured by current assets worth between \$1.6 and \$2.2 million in the first thirty-six months:

\*accounts receivable.....\$475,000 to \$840,000

\*raw material inventories.....\$400,000 to \$550,000

\*finished goods inventories.....\$710,000 to \$775,000

Flexibility will be required during the first three years of operations in the amounts and terms of both debt instruments. This will be particularly true when borrowings peak, calling for a credit line balance of \$1.3 million, secured by current assets of \$1.9 million as follows:

\*accounts receivable.....\$663,000

\*raw materials inventories.....\$500,000

\*finished goods inventories.....\$750,000

At the end of three years, the company's operations should be sufficiently secure and profitable to tighten down amounts and terms for the mutual benefit of lender and borrower. Given the significant market value of the long term assets, the circumstances should be ideal for a cross collateralized debt relationship which provides the mutually beneficial flexibility. The structure of the purchase and the company's first two years operating cash requirements mandate that borrower and lender make a strong and sustainable commitment to each other to support Stemwood and achieve its operating plan.

The owner's capital investment is planned to be \$10,000 in common stock. Due to the projection of net operating losses for the period ending December 31, 1989, the subchapter s corporation may receive personal loans from the owners up to the amount of the losses. This will enable the owners to reduce personal income taxes for 1989. The current operating plan forecasts about \$270,000 in net pre-tax losses for the remaining six months of 1989.

The projections envision a 12-year term loan in the amount of \$1.3 million, with interest only for the first three years. During the subsequent term of the loan, a 13-year amortization is planned, with principal being reduced by \$100,000 per year. A \$500,000 final balloon payment is planned for the twelfth actual year. These projections also call for full retirement of the note payable in approximately ten to eleven years, based on modest growth projections which are well within plant capacity, stringent control of all operating costs, and careful attention to working capital management. In spite of sales projections which are within current plant capacity, total plant additions of \$2.3 million are forecasted for the 12-year period.

#### **ASSETS ACQUIRED**

Stemwood Corp., located in New Albany, IN, is purchasing approximately 21 acres of real estate with 50,000 square feet of manufacturing buildings and 120,000 square feet of warehouses (primarily for finished goods storage), along with the production, maintenance, and office equipment and supplies. The property has been carefully maintained in excellent condition. The agreed purchase price for these assets is \$500,000.

According to the appraisals, the fair market value of the land, building and equipment is \$3.7 million:

\*land, buildings, and improvements.....\$2,900,000

\*mill equipment and lift trucks.....\$800,000

Many other purchased assets were not appraised. For example, management estimates the value of the four dry kilns and the twelve stainless steel flitch vats to be \$200,000. The two residences on the property were not appraised.

The environmental site assessment reports a basically "clean" site. There are two problem conditions: a small amount of deteriorating asbestos pipe

insulation and trace surface levels of gasoline in one soil boring next to the underground gasoline storage tank. These problems can be remedied by Stemwood in the regular course of business with costs in the \$25,00 to \$40,000 range.

The purchase includes the raw material inventory and the normally small amount of work-in-process inventory. Also to be purchased are knives and blades for the veneer slicing machinery and wood hogs, along with the flitch banding supplies. These will be purchased at their cost, estimated to be approximately \$600,000:

*Standing timber, under contracts with land owners.....	\$140,000
*Logs on the premises.....	\$420,000
*Solid flitches in process.....	\$ 20,000
*Knives, blades, banding.....	\$ 20,000

An extensive finished goods inventory will be retained by Chester B. Stem, Inc. Stemwood Corp. will store and function as an agent to sell certain quantities of these inventories over a two-year period on a fee basis.

#### **ADDITIONAL ACQUISITION CONSIDERATIONS**

An important consideration for the acquisition is that only finished goods inventories produced and owned by Stemwood after the closing of this transaction will serve as collateral for the requested debt. The seller's finished goods inventory will be separately marked and segregated as practical. These goods belonging to Chester B. Stem, Inc. must not in any way be encumbered or restrained by loan covenants or procedures.

An additional problem is that the price of the handling fee to be paid to Stemwood Corp. is below the actual cost to perform the services. Therefore, this difference is viewed by Stemwood Corp. as additional consideration in lieu of

purchase price. The shortfall amount is estimated to be about \$125,000 over the two year period. Stemwood Corp.'s forgone profits on these shipments is calculated to be another \$400,000, also deemed to be additional consideration in lieu of purchase price.

There is one known capital improvement required. The plant's main boiler is due for complete renovation in the next 12 to 24 months at an estimated cost of \$100,000. However, new management also anticipates an implementation of a computerized accounting and manufacturing control system in the first 18 months at an estimated cost for hardware and software of \$50,000.

There are significant advantages to the buyer and seller in this sales arrangement too. Chester B. Stem, Inc. will realize full market values in the liquidation of the inventories in the due course of business. Stemwood Corp. will be immediately able to offer good, saleable products to customers before its newly produced inventory would be available in adequate quantities for sale. Both the seller and the buyer benefit in blending the two quantities individually but adequate quantities together to satisfy a customer's requirements.

## **EMPLOYMENT TRANSITION**

The acquisition is to occur immediately after the beginning of the regularly scheduled two-week plant shutdown. Immediately prior to the closing of the sale, the seller will terminate the employment of the production and office employees. Stemwood Corp. will establish its own terms and conditions of employment and immediately begin accepting applications and hiring office employees. The majority of Stemwood's new work force will probably be comprised of former Chester B. Stem, Inc. employees. should the union wish to bargain on behalf of the newly constituted work force, it would have the right to



do so if more than 50% of the new work force is comprised of members of the current bargaining unit who choose to be represented by the union.

## **STEMWOOD'S GAME PLAN**

Stemwood's management team has a simplified game plane for the first two years:

1. Stabilize operations, learn the business and survive the first year's cash crunch.
2. Prune and pare individual limbs of the business for profitability.
3. Build the infrastructure of the customer base, employee team, and information systems.
4. Grow via customer and marketing-oriented decisions.

Stemwood's owners (James W. Robinson and David E. Wunderlin) provide a combination of mature, proven turnaround management and young, formally educated, industriousness to revitalize the business. Both have been owners and general managers in other companies and have extensive manufacturing backgrounds. While neither has much wood industry experience, both have the proven ability to enter new industries successfully. It is important to recognize that the acquired company has an abundance of "wood experts", and needs a general manager.

## **CRITICAL SUCCESS FACTORS**

Stemwood has defined six critical success factors for its next three years:

1. Get close to the customers.
2. Use a teamwork approach.
3. Be excellent log buyers.
4. Manage for cash flow.

5. Be the best high quality/low cost producers.
6. Achieve a balanced product/customer mix.

Here is a brief explanation of each factor:

Get close to the customers

Stemwood intends to be the leader in quality customer service as well as product quality. The customer service must add value to the customer that exceeds its cost to the customer. The only way to do that is to get close to the customer, his business, his needs, etc. so Stemwood can design programs that benefit him uniquely. Such service will distinguish Stemwood from other suppliers and establish a defensible and sustainable relationship with that customer.

Stemwood defines a customer as one who repeatedly buys the product at prices and terms for which he derives good benefit and which enable them to make a good profit and better serve the entire customer base.

Use a teamwork approach

Stemwood can achieve superior customer service quality only when every person in the company performs that standard. To perform to the standard, they must work together, every person performing his position with excellence. They must treat each other within the company as customers, because Stemwood is serving each other in each daily transaction, and working together to accomplish the results for the benefit of the customers. Stemwood knows automatically how to do this because they are all customers every day of the year. They know how they want to be treated, but especially, they know how good it feels to be treated excellently as a customer.

Be excellent Log buyers

Log procurement is such an important dimension to this business that it deserves a great amount of resources and attention. Buying right sets up all

other efforts of the company to produce right for good quality and yields, and to sell right products to the benefit of the customers.

Stemwood must do all they can to staff and perform the log buying job with the best available talent and methods. They must monitor and constantly improve their performance.

#### Manage for cash flow

Due to the capital structure of the new company, Stemwood cannot afford to invest or spend a single dollar unnecessarily. The predecessor company was flush with cash and could afford to make decisions which will be out of the question for Stemwood. This will be a significant change in approach for the old management team, and one that will have to be carefully instilled and trained into their management style.

#### Be the best high quality/low cost producers

In a mature business, the sales dollar goes to the best marketer and the best marketer is frequently the low cost producer. Having low costs relative to other producers is a well-known competitive advantage that Stemwood cannot afford to miss. However, this will not be accomplished at the sacrifice of quality.

The company is fortunate that its financial position requires it to lower costs immediately. This will become a habit and discipline that will be sustained in future years of prosperity. Productivity gains occur only through diligent and creative efforts to reduce costs while maintaining quality and customer benefits.

#### Achieve a balanced product/customer mix

One key to profitability is to achieve a balance in production, product quality, and product mix for the array of customers the business serves. The product cannot be made directly to specification. Therefore, it is critical to have relationships with customers who, in total, will buy the mill's entire production. The mix of customers and products will require constant re-balancing.

Stemwood will have to be aggressive, flexible, and highly responsive as a team of sales, procurement and production professional who can quickly and effectively re-balance the product/customer mix.

**Stemwood Corp.**  
**Comparative Balance Sheets**  
**December 31, 1987 - 88**

	1987 <u>Actual</u>	1988 <u>Actual</u>
<b>ASSETS</b>		
Current Assets:		
Cash and cash equiv.	\$144,662	\$145,759
Time Deposits	\$1,017,021	\$742,884
Marketable Securities	\$224,208	\$220,288
Net A/R	\$568,726	\$509,752
Timber and Log Inv.	\$2,264,073	\$2,516,077
WIP Inv	\$94,997	\$77,934
Refund of Taxes	\$0	\$13,422
Group Insur. Deposit	\$0	\$117,736
Prepaid Expenses	<u>\$38,266</u>	<u>\$35,046</u>
Total Current Assets	<u>\$4,351,953</u>	<u>\$4,378,909</u>
Other Assets:		
Life Insurance (Cash Value)	\$496,536	\$518,107
Unamort. Cost-Patent & Trademark	\$3,573	\$4,686
Misc. Receiv./Other assets	<u>\$27,132</u>	<u>\$39,586</u>
Total Other Assets	<u>\$527,241</u>	<u>\$562,379</u>
Net Property, Plant, & Equip.	<u>\$1,020,209</u>	<u>\$872,171</u>
<b>TOTAL ASSETS</b>	<u><b>\$5,899,403</b></u>	<u><b>\$5,813,459</b></u>
<b>LIABILITIES &amp; S.E.</b>		
Current Liabilities:		
Accounts Payable	\$189,582	\$154,409
Dividends Payable	\$14,062	\$9,375
Profit sharing	\$7,000	\$3,000
Accrued Expenses	\$86,796	\$92,465
Income Taxes:		
Current	\$37,280	\$0
Deferred	<u>\$11,020</u>	<u>\$8,832</u>
Total Current Liabilities	<u>\$345,740</u>	<u>\$268,081</u>
Long-Term Liabilities:		
Deferred Income Taxes	\$9,788	\$0
Deferred Compensation Contract	<u>\$79,682</u>	<u>\$79,682</u>
Total Long-Term Liabilities	<u>\$79,682</u>	<u>\$89,470</u>
Stockholders' Equity:		
Noncum., 5% pref. stock of \$50 par		
15,000 shares auth.& issued	\$750,000	\$750,000

Class A nonvoting common stock		
No par, 15,000 auth, 13,749 issued	\$13,479	\$13,479
Class B voting common stock, no par		
5,000 auth., 5,000 issued	\$5,000	\$5,000
Retained Earnings	<u>\$4,695.444</u>	<u>\$4,696.947</u>
Total Stockholders' Equity	<u>\$5,464.193</u>	<u>\$5,465.696</u>
<b>TOTAL LIABILITIES &amp; S.E.</b>	<u><b>\$5,899.403</b></u>	<u><b>\$5,813.459</b></u>

**Stemwood Corp.**  
**Pro-Forma Balance Sheet**  
**Fiscal Year 1989-90 thru 1991-92**

	1989-90 <u>Forecast</u>	1990-91 <u>Forecast</u>	1991-92 <u>Forecast</u>
<b>ASSETS</b>			
Current Assets:			
Cash	\$10,000	\$10,000	\$10,000
A/R	\$478,150	\$663,000	\$842,250
Timber & Log Inventory	\$400,000	\$500,000	\$550,000
WIP Inventory	\$20,000	\$20,000	\$20,000
Finished Goods Inventory	\$711,229	\$750,000	\$775,000
Prepaid Expenses	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Current Assets	\$1,619,379	\$1,943,000	\$2,197,250
Property, Plant, & Equip.:			
Land	\$76,000	\$76,000	\$76,000
Plant & Equipment	\$459,271	\$557,174	\$601,791
Other Assets	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Total Assets</b>	<b><u>\$2,154,650</u></b>	<b><u>\$2,576,174</u></b>	<b><u>\$2,875,041</u></b>
<b>LIABILITIES &amp; S.E.</b>			
Current Liabilities:			
A/P	\$150,000	\$157,500	\$165,375
Note Payable	\$1,060,116	\$1,245,749	\$1,222,520
Accruals	<u>\$47,940</u>	<u>\$50,337</u>	<u>\$52,854</u>
Total Current Liabilities	\$1,258,056	\$1,453,586	\$1,440,124
Long-Term Debt	\$1,300,000	\$1,300,000	\$1,300,000
Capital Stock	\$10,000	\$10,000	\$10,000
Retained Earnings	<u>(\$413,406)</u>	<u>(\$187,412)</u>	<u>\$124,292</u>
<b>Total Liabilities &amp; S.E.</b>	<b><u>\$2,154,650</u></b>	<b><u>\$2,576,174</u></b>	<b><u>\$2,875,041</u></b>

**STEMWOOD CORP.****Comparative Income Statements  
December 31, 1987 thru 1991-92**

	<b><u>1987</u></b> <b><u>Actual</u></b>	<b><u>1988</u></b> <b><u>Actual</u></b>	<b><u>1989-90</u></b> <b><u>Forecast</u></b>	<b><u>1990-91</u></b> <b><u>Forecast</u></b>	<b><u>1991-92</u></b> <b><u>Forecast</u></b>
Net shipments	\$4,696,970	\$4,714,641	\$3,202,100	\$5,021,250	\$5,615,000
Gross Profit	\$1,219,311	\$1,127,105	\$1,146,767	\$2,011,342	\$2,284,986
Total Oper. Exp.	\$1,116,527	\$1,147,102	\$1,337,668	\$1,490,988	\$1,589,736
Operating Profit	\$102,784	(\$46,997)	(\$190,901)	\$520,354	\$695,250
Interest Exp.	\$7,000	\$3,000	\$222,505	\$294,360	\$304,080
Profit Before Tax	\$224,957	\$53,065	(\$413,406)	\$225,994	\$391,170
Income Tax Exp.	\$32,589	\$0	\$0	\$0	\$79,446
<b>Net Income</b>	<b>\$192,368</b>	<b>\$53,065</b>	<b>(\$413,406)</b>	<b>\$225,994</b>	<b>\$311,704</b>



## Evaluation of Caldwell Tanks, Inc.

In evaluating the effects of the purchase of Caldwell Tanks, Inc. by Mr. Robinson, it is best to look at various financial ratios. Liquidity ratios, leverage/coverage ratios, and profitability ratios all play an important part in analyzing CTT's success.

There are two liquidity ratios that help show CTT's improvement after the acquisition. The liquidity of a company is one determinant of its debt capacity. An asset is liquid if it can be readily converted to cash, while a liability is liquid if it must be repaid in the near future. The current ratio compares the current assets to the current liabilities. A low current ratio lacks liquidity in that it can't reduce its current assets for cash to meet maturing obligations. It must rely on outside financing and outside income instead (Higgins 56). CTT's current ratio, as seen in the attached chart, more than doubled from 1984 to 1986. In 1987, CTT's ratio was 4.35, proving that it had become a very liquid company.

The other liquidity ratio is the quick ratio, which is more conservative. It is identical to the current ratio except that the current assets are reduced by inventory. This is because many times inventory is illiquid. If a company needs to sell its inventory fast as in a liquidation, it usually will receive less than half of the book value, thus making it illiquid. The quick ratio for CTT has also increased drastically from 1984 to 1987. In 1987 the ratio was 2.47, still high enough to show CTT's liquidity.

Financial leverage/coverage is another way to measure the success of a company. A company increases its leverage when it raises the proportion of debt relative to equity used to finance the business. This is a ratio that doesn't necessarily have to be maximized, there just must be a balance between the benefits and costs of debt financing. Financial leverage and the return on assets

ratio, which will be discussed later, are inversely related. So having a low leverage ratio means that the company will have a high ROA ratio (Higgins 50). The best leverage ratio to look at is the debt to net worth ratio. It provides a measure of the funds provided by creditors versus the funds provided by owners. CTT's debt to net worth ratio starts out at 1.13 in 1983, and ends up at .51 in 1987. This means that the company has shifted its debt reliance from creditors to the owners, which is expected because Mr. Robinson, who was a major source of funds, became an owner when he bought out the company. Having the low ratio here is good because CTT has a high ROA ratio.

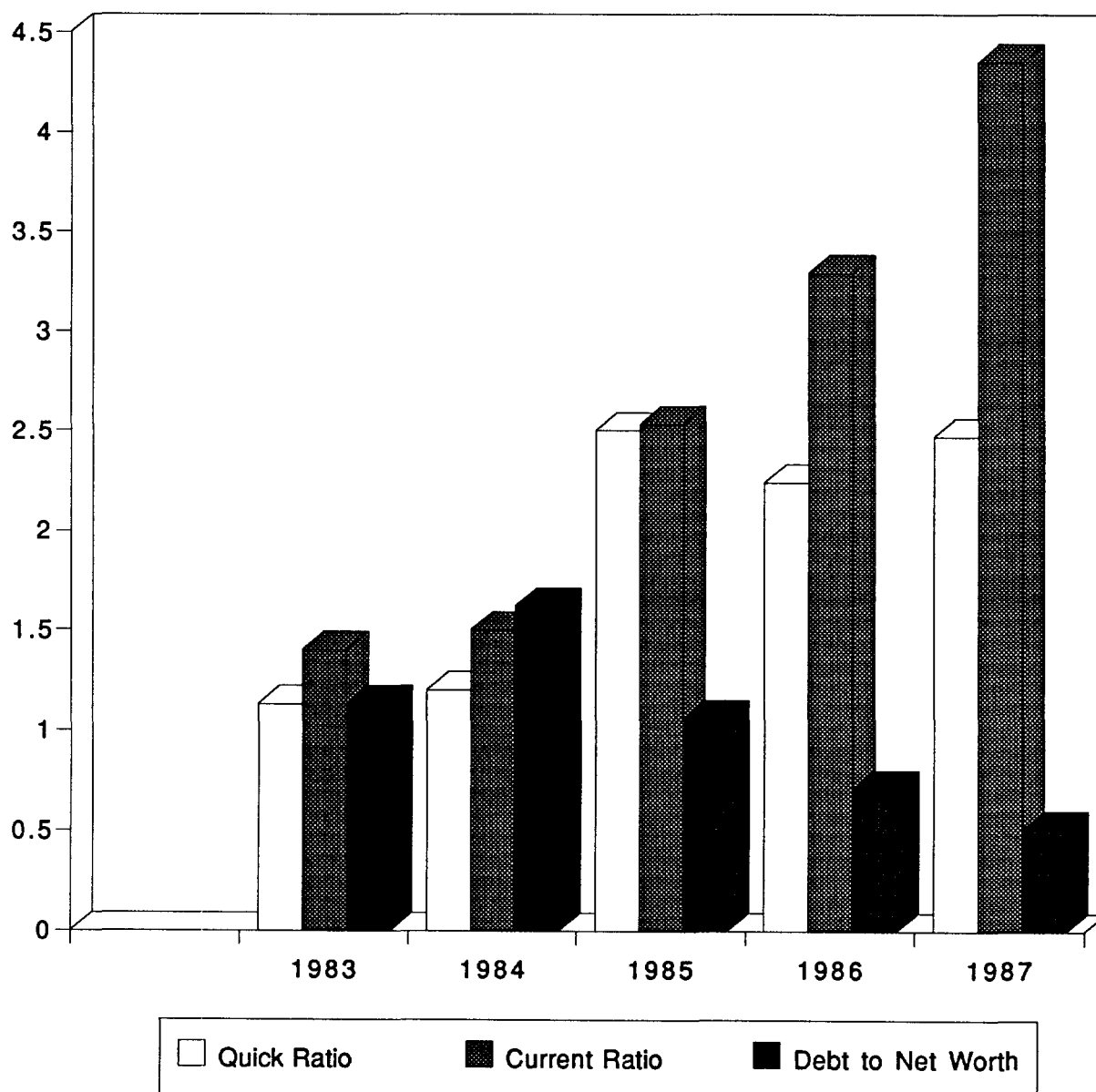
The next set of ratios that are important to look at when discussing the effects of the acquisition are the profitability ratios. As discussed in the previous paragraph, return on assets is one of these ratios. ROA measures the efficiency with which a company allocates and manages its resources, or, in other words, a measure of the return on total investment in the company. It measures profit as a percentage of the money provided by owners and creditors. CTT's ROA improved drastically after the acquisition, going from a -4.45% at year end in 1985 to 27.07% at year end in 1986. The ROA drops a little bit in 1987 to 19.44% which is a result of the extremely high increase the year before. In both of these years, though, the ROA is at a fairly high percentage, which is good because it combines with the low debt to net worth ratio.

Another profitability ratio that is similar to ROA is return on equity. ROE measures the efficiency with which a company employs owners' capital only (as opposed to owners and creditors' capital). It is a measure of earnings per dollar of invested equity capital, or the percentage return to owners on their investment (Higgins 40). After the acquisition, CTT's ROE changed drastically also, going from -22.15% at year end 1984 to 49.80% at year end in 1986. This is a definite indicator of the turnaround in profitability for the company.

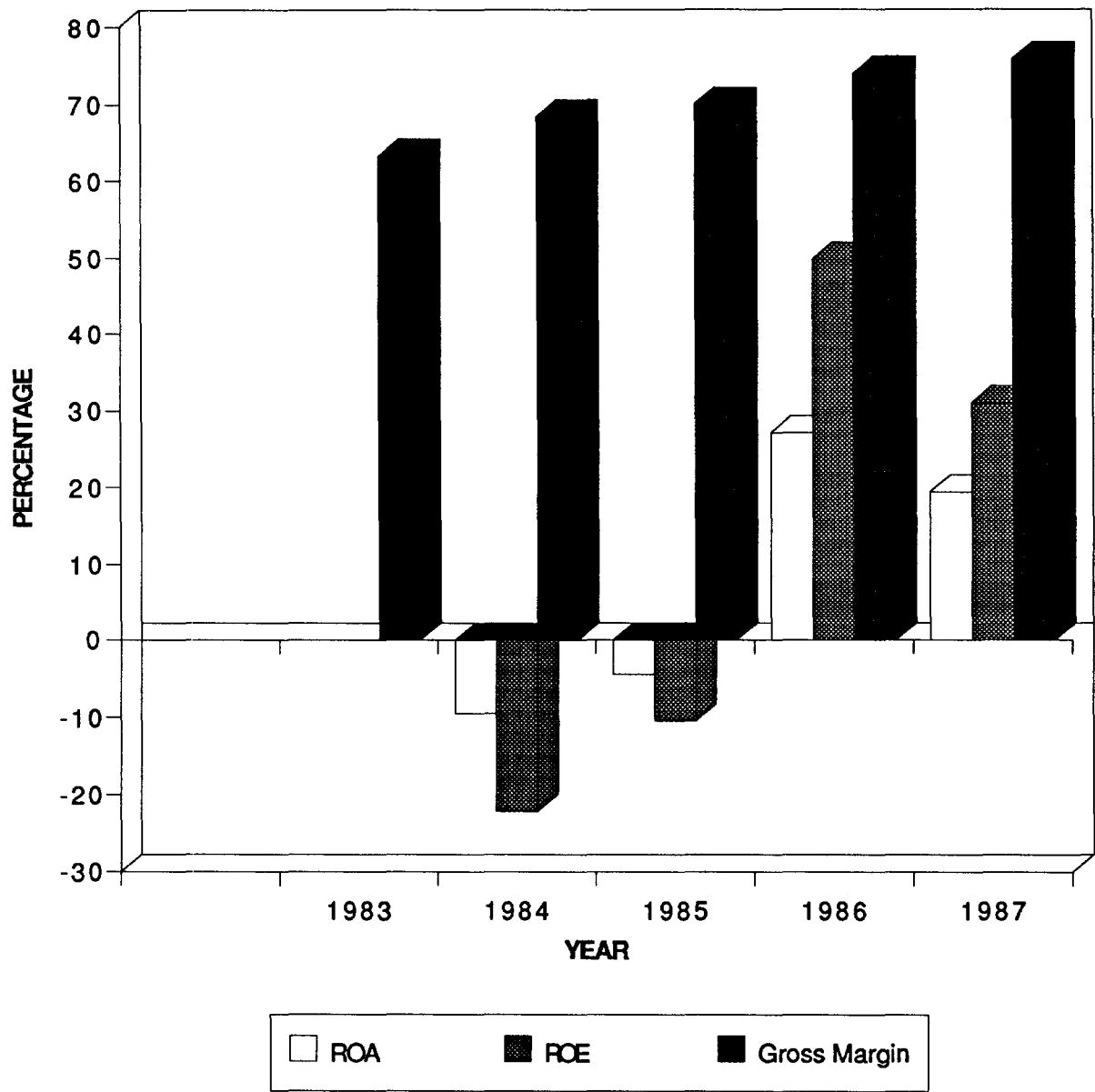
Yet another important profitability ratio to look at is that of gross margin. Gross margin allows a distinction between fixed and variable costs. This is important because a company that has a high amount of fixed costs is more vulnerable when sales decline because the fixed costs cannot be reduced as the sales fall, the ending result being lower profits. CTI has experienced a steady increase in gross margin since the acquisition which means that a larger amount of every sales dollar is available to pay for fixed costs and to add to profits. As of year end 1987, the gross margin was 75.81%, a very high ratio indicating a very profitable company.

One last aspect to look at in evaluating the effect of Mr. Robinson's acquisition, is the growth percentages of the company. The largest jump in growth percentages has happened between 1985 and 1986. Total assets jumped from a -24.79% to 37.59%, total liabilities from -37.39% to 10.56%, net worth from -4.35% to 66.31%, net profit from -141.06% to 520.24%, and net sales from -7.28% to 6.92%. The most dramatic increase is that of net profit which definitely shows the benefits of the acquisition. All of the increases are reflected in the ratios previously mentioned and show positive results for CTI.

## CTI ANALYSIS



CTI ANALYSIS



## Evaluation of Stemwood Corp.

The steps that will be used to analyze Stemwood Corp. are very similar to those that were used to analyze Caldwell Tanks, Inc. Looking at various financial ratios and certain figures off of the balance sheets and income statements help to demonstrate the effect that the acquisition by Mr. Robinson had on the company. The liquidity ratios, leverage ratios, and the profitability ratios are going to help prove the success of Stemwood Inc.

As mentioned before in the CTI analysis, liquidity ratios help determine debt capacity. The current and quick ratio provide two ways of measuring Stemwood's debt capacity. The current ratio for Stemwood, which indicates the extent to which the claims of short-term creditors are covered by assets that are expected to be converted to cash in a period corresponding to the current liabilities, goes from 1.29 in 1989 to 1.53 in 1991. This means that since the acquisition, the company has become more stable and could withstand the conversion of assets to cover debt if necessary.

For Stemwood, the quick ratio was one of concern for the company. It is the more conservative liquidity ratio because it subtracts inventory from the current assets when comparing them to current liabilities. In 1989, Stemwood's quick ratio was .97 which means that if they had to convert their current assets to cash, they would not have enough to cover their current liabilities. Any quick ratio that falls below a 1.00 is cause for concern. But after the acquisition, Stemwood was able to raise this ratio to a safe 1.14 by 1991.

Another area that displays Stemwood's progression after the acquisition is that of leverage. The pertinent ratio to look at is the debt to net worth ratio. As mentioned before, this ratio doesn't have to be maximized, it just has to relate inversely with the return on assets. But for Stemwood, in 1989 and 1990 the debt

to net worth ratio was negative (-3.22 and -7.33, respectively). This means that there are more funds being provided by the creditors rather than the owners. But in 1991 the ratio straightens out to 9.68 which is a result of the shuffling of the way they financed their obligations.

Probably most important in the Stemwood analysis is the profitability ratios. This is where the largest change in figures after the acquisition results. In just looking at the numbers off of the income statements, the net income (loss) went from (\$413,406) in 1989 to \$225,994. This in itself says a lot about the impact of Mr. Robinson's purchase of Stemwood. But going further into the analysis, Stemwood's return on assets ratio also displays the impact of the purchase. ROA measures the profit as a percentage of the money provided by owners and creditors. Stemwood's ROA went from -38.4% in 1989 to 9.6 in the following year, and it continues to increase to 11.4 in 1991 as can be seen in the accompanying chart. These ratios show a definite turnaround in the company and show potential for the future.

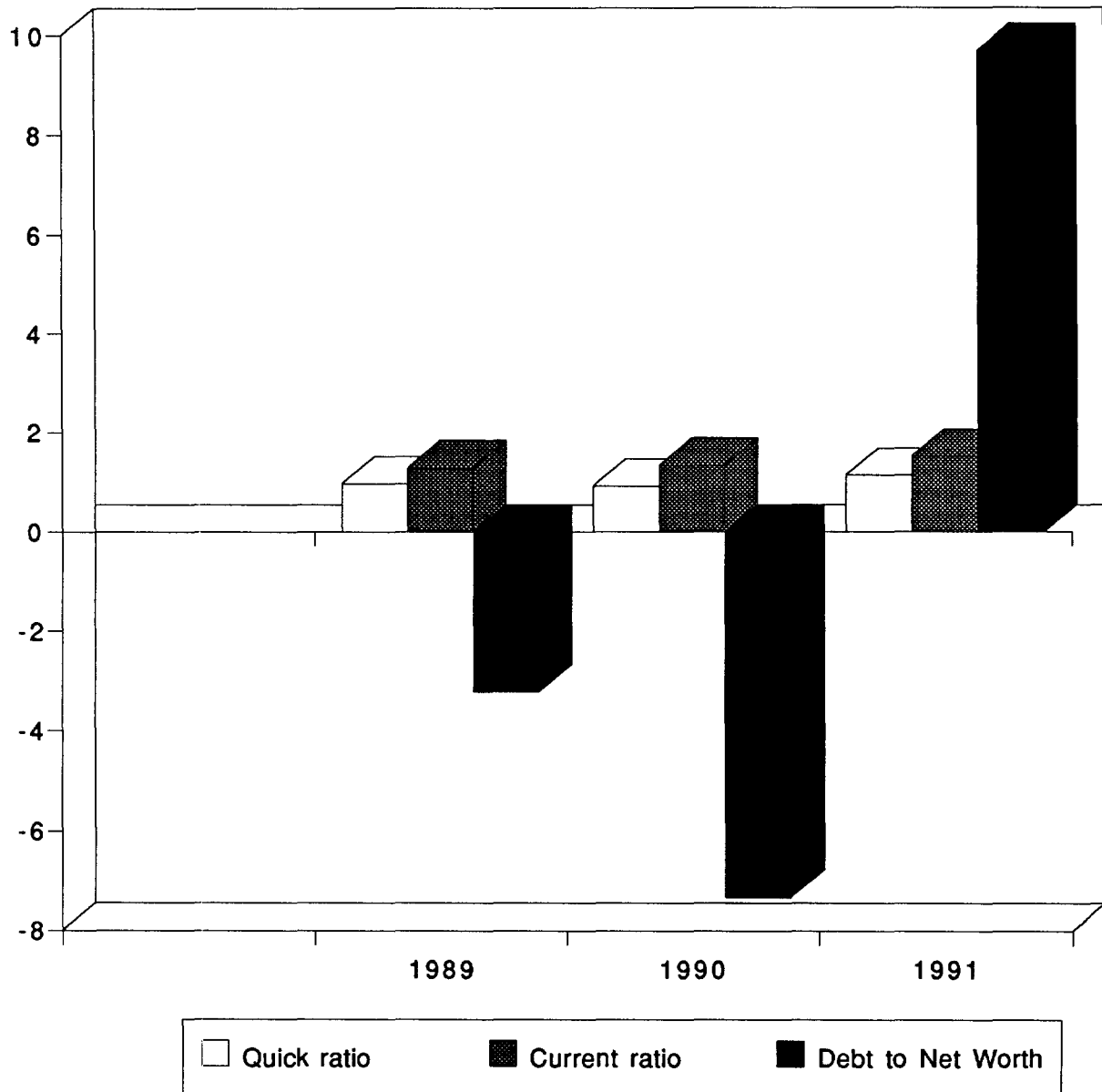
The other important ratio is that of gross margin. This ratio relates directly to the income statement increases because it measures gross profit in relation to sales. As sales increase, and operating costs remain the same or decrease, then the gross margin will increase. Stemwood's gross margin increases from 35.81% in 1989 to 40.05% in 1990. Because the numbers used in calculating gross margin are so large, the percentage increase is never very high, so an increase of 5% in one year is really a good percentage change. This change, obviously, is directly related to the revamping of the company.

The accompanying charts show the increases in these ratios on a year by year basis. While the increases aren't quite as dramatic as those of Caldwell Tanks, the ratios still show how Mr. Robinson's purchase turned the company around. If he hadn't stepped in, the company would not have been able to

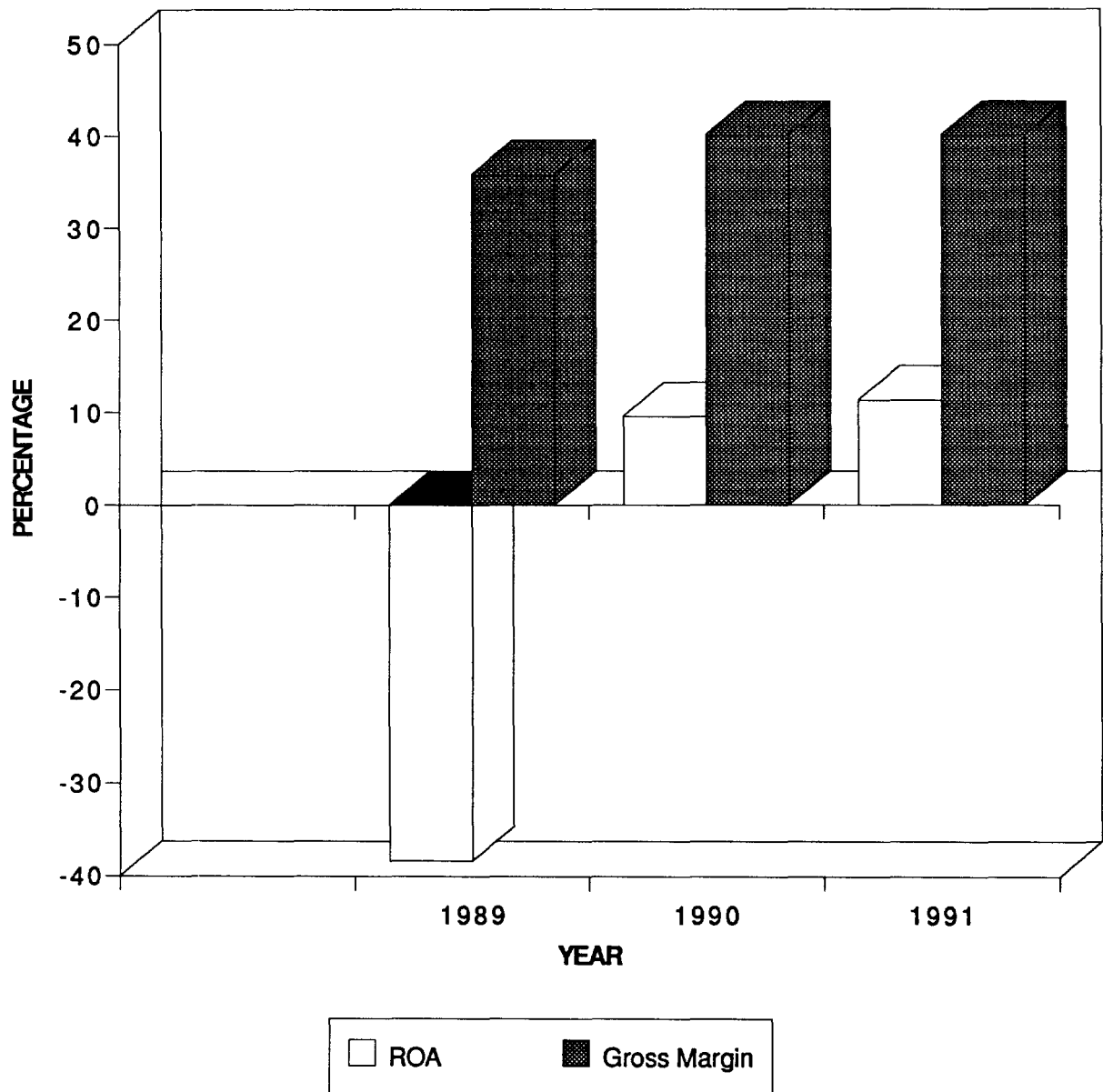
continue and would have had to fold close down and liquidate. Mr. Robinson was not only able to allow the company to continue its operations, but he allowed Stemwood to pave the way for a successful future.



## STEMWOOD ANALYSIS



## STEMWOOD ANALYSIS



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